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To: Renata Hesse, Trial Attorney
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My name is Leon H. Carrington, I am a citizen of the United States and I am herewith submitting my comments regarding the Proposed Final Judgement in Civil Action No. 98-1232, United States of America v. Microsoft Corporation.

The government has breached its duty to the public by offering the Revised Proposed Final Judgement (Final Judgement) as a Final Judgement and settlement in the case United States v. Microsoft Corporation. The remedy proposed is not effective for correcting or eliminating the violations alleged in the Complaint (Civil Action No. 98-1232 (CKK)). The remedy proposed would create more harm to the public than the damage alleged due to the fact that the proposed remedy would ignore serious allegations and behavior found by the United States District Court for the District of Columbia and the United States Court of Appeals for the District of Columbia, to be in violation of the Sherman Act; and it would confer upon Microsoft powers and authority the market does not allow it to possess currently. Thus, the proposed remedy would not be in the public interest and would be disastrous for many third parties, while greatly benefitting Microsoft.. If the remedy proposed includes both the Final Judgement and the Competitive Impact Statement, the proposal is wholly inconsistent with the Complaint and its allegations due to the fact that the Competitive Impact Statement is not even consistent with the Final Judgement which in turn is not responsive to the Complaint.

Specifically, the most glaring and perverse inconsistency is the base of nearly all damage rendering the Final Judgement inadequate and insulting. That inconsistency is the fact that the Complaint is substantially built on the definition of an operating system. The Competitive Impact Statement defines an operating system in a manner wholly consistent with the Complaint. The Competitive Impact Statement definition is in Section III "Description Of The Practices Giving Rise To The Alleged Violations", subsection B "Factual Background", subsection 1 "Microsoft's Operating System Monopoly". The Complaint definition is in Section IV "The Relevant Markets", subsection A "The PC Operating System Market". Astonishingly, in this very subsection the Complaint states truthfully, that "**No other product duplicates of fully substitutes for the operating system.**" Yet the Complaint incorrectly states in Section IV "The Relevant Markets", that "There are two relevant markets. The market for personal computer operating systems, and the market for Internet browsers." This is foolish, indeed. There **are** two relevant markets. The market for personal computer operating systems, and the market for applications which includes Internet browsers. Note also that the District Court found and the Appeals Court agreed, that Microsoft illegally tied its Explorer browser into Windows in a nonremovable way while excluding rivals, in violation of section 2 of the Sherman Act. The illegal tie-in also injured certain other application developers developing

under Windows, who may not have been involved with browsers..

Notwithstanding, the Complaint makes reference to “Microsoft’s Windows operating system” in section III subsection C. The Complaint refers often to “Microsoft’s Windows operating system monopoly”. That an operating system enables virtual software unification of the hardware computer components and resources, exposing them, and thus facilitates use of those resources and components by users (consumers) and applications, is a perfectly acceptable and commonly understood definition of an operating system. However the Final Judgement creates a new class of product called a Microsoft Operating System **Product** (my emphasis) This new class, according to the Final Judgement, includes Windows 2000 Profession, Windows XP Home and Professional, and their successors. The Final Judgement further states in the definition of the term “Microsoft Operating System Product,” that the code comprising the same “shall be determined by Microsoft in its sole discretion.” (Section VI - Definitions) We are lost. In spite of the fact that the Competitive Impact Statement recognizes what an operating system is, it confers upon the above listed Microsoft operating systems the designation “Microsoft Operating System Product”. The new class and the reliance on Middleware by the Final Judgement and the Competitive Impact Statement, permits Microsoft to **evade** due penalties for established violations and further abuse their operating system monopoly by expanding their “tie-in” policy and rendering harmed ISV’s among others, to the status of market irrelevance. This is a position Microsoft does not currently enjoy. Allowing Microsoft to define what an operating system is (through their monopoly control and now U.S. Justice Department assistance) eliminates the threat of Middleware and applications which may compete with Microsoft applications. Indeed, applications not yet conceived can be preempted until Microsoft “discovers” them and adds them to their monopoly.

For such cause, many people recognize that breaking up Microsoft is the best first step in correction of alleged and established abuse. Recognizing and enforcing the legitimate (in this case) separation of operating system and application is the best way to eliminate the basis by which Microsoft’s abuse of its monopoly operating system caused damage and continues to do so. Separating the operating system would encourage its owner to make public all feature provided by the underlying hardware manufacturers. It would further encourage competition between hardware component manufacturers which manufacturers are as much victimized by Microsoft’s abuse of its monopoly operating system as consumers and ISVs by virtue of the fact that hardware components’ interfaces must suit the Microsoft vision or be excluded. This why so many computer software game manufacturers continued to develop for DOS well into the late 1990's: the Windows interface denied them full access to the functionality that enabled them to distinguish themselves and satisfy their customers. No other vertical software market had a customer base that allow it or the underlying hardware vertical market to “rebel”. We are missing many new innovations.

Evading the operating system definition eliminates or surely deteriorates the possibility of illegal tie-ins. All potential beneficiaries of just and reasonable corrections that would have been established by faithfully addressing the allegations of the also semi-adequate Complaint, are instead further damaged or untreated (left damaged) by the Final Judgement. In the Complaint Section I subsection 5 it is stated the “Microsoft’s conduct includes agreements tying other Microsoft software products to Microsoft’s Windows operating system; . . .” The effects of these tie-ins are well known but not part of the allegations of the Complaint. A Microsoft application with hidden interfaces (tie-ins) to the operating system has a chilling effect on the development of competitive products and prevents those few who may discover this interface from remaining competitive because of course, the hidden interface may be changed upon upgrade of Microsoft’s application or operating system, and the former interface removed, thus “breaking” the competitors application and causing consumers to

spend more money unnecessarily. This situation also allows Microsoft to occasionally appear to be competing on the merits of their offering when such is not the case. Promoting middleware as is done in the Complaint, the Final Judgement, and the Competitive Impact Statement, does nothing to alleviate this problem. **As stated in the Complaint and noted above, “No other product duplicates or fully substitutes for the operating system.” Indeed, middleware is just another application, however useful.** Denying ISVs and consumers the benefits afforded them by a legitimately marketed bona-fide operating system as opposed to an “Operating System Product” can not be in the public interest, and is not responsive to the Complaint, including prior court judgements.

When the “Nimda” computer virus appeared last year, I was amazed at how it performed its activities. I was more astonished when it occurred to me that I was reading about functionality only a person familiar with Microsoft applications programming would understand. What astonished me was the fact that this and many other common viruses could not occur if Microsoft applications were not tied in to the operating system. Operating system vulnerabilities are policed, as it were, by the entire computing community. Application vulnerabilities are not so well noted, because applications other than middleware do not generally offer much exposure to the programming consumer, and competition keeps them distributed, not concentrated through the entire PC universe. **This is not the case with Microsoft applications.** Commonly used Microsoft applications are part of the “programmers toolkit” for Windows developers. If they were not, the anticompetitive position they occupy would be more blatant as only Microsoft could interoperate with them, using the exposed underlying functionality. On the other hand, having these products so fully integrated into the operating system and each other while exposed and enjoying the proliferation obtained from Microsoft’s illegal use of its monopoly operating system, facilitates more and more clever exploits by hackers. **The most common viruses affecting consumers have used the victims own Microsoft applications.** It is not so easy to wreak havoc in other operating system environments where there are no externally programmable, ubiquitous applications which applications are fully integrated into the operating system via hidden APIs or interfaces. Strangely enough, in the Linux community, where essentially nothing is hidden, applications of this power could exist and remain secure because the open source community polices its environment jointly and severally. Interesting. . . someone can break Microsoft products but only Microsoft can fix them. Who pays? Thus we have another nasty by-product of the “tie-in” problem. It would be eliminated or greatly reduced with a return to application development competition based on an operating system exposed on a non-discriminatory basis.

It would thus be disastrous for ISVs and consumers alike if Microsoft had authority to regulate security issues for operating system and applications alike. That power is also effectively granted by the Final Judgement where security APIs and documentation are to regulated directly or indirectly by Microsoft, the antithesis of security in consumer and commercial computing.

That the Final Judgement creates a new class called Microsoft Operating System Product, is reprehensible, clearly evading the issues addressed by the complaint. That ISVs who know how to use computing facilities as well as and better than Microsoft should be relegated to the use of middleware for protection from abuse and for development is not contemplated by the Complaint or Court findings; is unjustly discriminatory, and not in the public interest; denying the public the expected benefits of many new applications which may or may not use, or be middleware; yet must have the access to the same APIs and documentation as any other entity in the computing arena. Indeed, many of the best among us **study hardware documentation for software development, and vice versa.** Shall the United States Justice Department and Microsoft alter this historic

landscape of a market in the interest of anyone other than Microsoft?

The Competitive Impact Statement seeks to limit the competition that competes against Microsoft and others in selected markets, by requiring that ISVs must be of a certain size in the market and have had that position over a particular period of time in order to obtain API disclosure relief under Section III.D of the Final Judgement; further enabling Microsoft to evade Complaint allegations and even Sherman Act violations it has been found guilty of. This is the case because again, some small mind has not yet learned that computing facilities are continually reused by bright agile minds.

Interfaces used for middleware in one mind are perfect and necessary for another application in the mind of another party. This reuseability is the inherent nature of computer software and even the smallest computer hardware components. The various underlying markets must not be constrained by this taking on behalf of Microsoft. The limited vision of Bill Gates' nightmares and appetites are not the proper perspective to use to correct the abuses of Microsoft's monopoly operating system.

The Competitive Impact Statements states in defining a Non-Microsoft Middleware Product, that such a product must have **"at least one million copies distributed in the U.S. within the previous year"** (my emphasis) .It further states that this requirement **"is intended to avoid Microsoft's affirmative obligations -- including the API disclosure required by Section III.D . . . being triggered by minor or even nonexistent products that have not established a competitive potential in the market and that might even be unknown to Microsoft development personnel."** (my emphasis) This is preposterous! This constitutes unjust and unlawful restraint of trade and unjust discrimination. The Final Judgement does not restrict ISVs to a size or type insofar as their right to obtain the benefit of relief under Section III.D is concerned. If such were the case, the U.S. and Microsoft have decided who has the right to compete where in the computing market which as stated above, consists of many integrated and simultaneously distinct and **competing** markets. This carving of the competing development community, to the benefit of Microsoft, is ironically, the exact opposite of what should be carved. Neither the U.S. nor Microsoft has the right to determine what merely new, useful, and innovative products may be created using any functionality of a legitimate operating system. Is this why the evasion technique deployed is to call an operating system an **operating system product** instead of an operating system?

How dare this decree suggest that Microsoft development personnel should be aware of what all or any others are doing in development. Microsoft development personnel can not provide consumers a **finished product** after any number of beta tests, **nor can they secure** the products they make. The Revised Proposed Final Judgement and related Competitive Impact Statement are a stench in the nostrils of intelligent, informed consumers. Unless a settlement can resolve the issues raised herin, Microsoft should be broken into a least two separate pieces: operating systems and applications.

Respectively Submitted,

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